

## **ABSTRACT**

A method that utilizes software and hardware mechanisms to meet the FCC requirement for a U-NII antenna to be an integral part of the device in which it operates, while providing wireless ready U-NII devices and CRUable U-NII radios. Enhancements are made to the software BIOS, including the inclusion of a table of approved radio-antenna PCI ID pairs to create an authentication scheme that verifies and authenticates the radio and antenna combination as being an FCC-approved unique coupling during boot-up of the system. The BIOS also comprises an OEM field that stores an encrypted secret key utilized to complete a second check of the radio model placed in the device. During boot up of the device, the PCI ID pairs from the BIOS are compared against the PCI ID of the radio and the secret key is checked against the radio model. Only a system with an approved combination of radio and antenna is allowed to complete the boot process, indicating an FCC approved device-antenna-radio combination under the “integral” requirement.